

Physical Science

Grade: 8th

Subject: Review Chapter 3

Date: Oct 24

Oct 24-9:25 AM

- 1 How long does it take a sound wave to reach you if it travels 1000m at a speed of 330 m/s?

$$\frac{1000 \cancel{\text{m}}}{330 \cancel{\text{m}}/\text{s}} = 3.03 \text{ s}$$

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- 2 How long does it take you to reach Fort Benton if you travel 60 km/hr for a distance of 40 km?

$$60 = \frac{40}{x} \rightarrow \frac{60x}{60} = \frac{40}{60}$$

$$v = \frac{\text{distance}}{\text{time}} \quad 2/3 \text{ hr}$$

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- 3 What is your velocity if you travel by plane 30 km south to Denton in 20 minutes?

$$v = \frac{d}{t} \rightarrow \frac{30 \text{ km}}{20 \text{ min}} \rightarrow 1.5 \text{ km/min}$$

velocity

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- 4 If you travel 80 meters north in 5 seconds, what is your velocity?

$$v = \frac{d}{t} \quad \frac{80\text{m}}{5\text{s}} = 16\text{ m/s}$$

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- 5 What is your acceleration if your velocity changes from 0 m/s to 40 m/s in 2 seconds?

$$\frac{\Delta x}{\Delta t} = \overline{v}$$

$$\frac{\Delta v}{\Delta t} = \overline{a}$$

$$\frac{40\text{ m/s}}{2\text{ s}} = 20\text{ m/s/s}$$

$$\frac{40\text{ m/s} = \Delta v}{2\text{ s} = \Delta t}$$

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6 What is your acceleration if your velocity changes from 0 km/hr to 110 km/hr in 0.1 hr?

$$\frac{110 - 0 \text{ (km/hr)}}{.1 \text{ (hr)}} =$$
$$\begin{array}{r} 110 \\ \times 10 \\ \hline 1100 \end{array}$$
$$\begin{array}{l} \text{km/hr/hr} \\ \text{km/hr}^2 \end{array}$$

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7 The measure of the force of gravity on an object is...?

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8 The tendency of an object to resist any change in motion is ...?

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9 Forces of equal size in opposite directions is called a _____ force

balanced

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10 Another term for an unbalanced force acting on an object is a net force

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11 An object moving at a constant velocity will want to remain in motion and an object at rest will remain at rest unless a net force acts upon it summarizes Newton's first law

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12 ~~Velocity~~ describes both speed and direction
Velocity

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13 Acceleration is the rate of change of speed and/or direction

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14 The unit m/s is used for describing velocity

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15 The unit N is used for describing Force

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16 The unit meters per second squared (m/s/s) is used to describe acceleration

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17 The unit kg is used to describe mass

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18 Which object has the most inertia?

A pencil

B bowling ball

C toothpick

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19 In one word, how is mass different than weight?

gravity

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20 the equation $v = (d/t)$ describes acceleration

True

False

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units + equation for velocity $\overline{v} = \frac{\Delta d}{\Delta t}$ or $\frac{\Delta x}{\Delta t}$
 units + " for acceleration $\overline{a} = \frac{\Delta v}{\Delta t}$ or $\frac{v_f - v_i}{t_f - t_i}$

difference between mass, weight, + gravity

Newton's first law

What is inertia?

What is a force?

The difference between a net + balanced force

How to read a graph

Oct 26-10:10 AM